

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A control method for a twin synchronization in which two motors for driving two axes mechanically fastened to each other by a fastening part are synchronously operated,

the control method comprising the steps of:

operating one of the two axes at low speed by a position control and allowing the other axis to freely run and follow the one axis and perform a return to the origin;

measuring a positional deviation between the one axis and the other axis at an arbitrary pitch;

storing the positional deviation corresponding to a position where the one axis travels in a data base as a function;

directly distributing one position command to the one axis as a main position command;
and

distributing the position command to the other axis as a position command corrected by using the function stored in the data base to perform an operation.

2. (original): The control method for a twin synchronization according to claim 1,
wherein

the deviation measured at the arbitrary pitch undergoes a linear interpolating process in the function to output the obtained deviation.

3. (currently amended): The control method for a twin synchronization according to claim 1-~~or~~2, wherein

in the position command to the other axis, a travel speed is employed as a parameter to move forward the phase of a corrected value.

4. (original): The control method for a twin synchronization according to claim 1, further comprising the steps of:

detecting the position of a center of gravity of the fastening part;

preparing a function for forming an inertia compensating gain of each axis by using a position signal as an input;

changing the inertia compensating gain in the position of the center of gravity of the fastening part; and

adding a necessary torque calculated on the basis of an acceleration obtained from the position commands of the two axes and a mass of each axis to a torque command.